WHAT IS CLAIMED IS:

1. An image reading apparatus for use with an original document, comprising:

an image reading device that reads an image on the original document as image data;

a driving device that drives the image reading device in a sub scanning direction;

a signal generator that generates a signal every time the image reading device is driven by the driving device by a specified amount;

a signal interval detecting device that detects the signals generated by the signal generator and a time interval between the signals;

a setting device that generates a predetermined time interval at which the electrical charge is accumulated for one line by the image reading device; and

a controller that controls a value of current supplied to the driving device to make the time interval detected by the signal interval detecting device corresponding to the predetermined time interval.

2. The image reading apparatus according to claim 1, further comprising a selecting device that selects an image reading mode; and

wherein the predetermined time interval generated by the setting device is changed according to the image reading mode selected by the selecting device.

3. The image reading apparatus according to claim 2, wherein the selecting device selects an image reading resolution of the image reading device.

4. The image reading apparatus according to claim 3, wherein the selecting device selects the image reading mode to read the image in color or in monochrome.

5. The image reading apparatus according to claim 1, wherein the signal interval detecting device detects the time interval between one of the signals and a preceding one of the

signals every time the signal interval detecting device detects the one of the signals generated by the signal generator.

6. The image reading apparatus according to claim 1, wherein after the time interval becomes equal to the predetermined time interval, the controller synchronizes a timing to generate the predetermined time interval by the setting device with a timing to generate the signal by the signal generator and then starts to read the image by the image reading device.

7. The image reading apparatus according to claim 1, further comprising:

an interface that connects the image reading apparatus and an external device;

a storage device that temporarily stores the image data read by the image reading device before the image data are sent out to the external device through the interface;

a detector that detects an amount of the image data storable in the storage device;

an instruction device that provides an instruction to stop driving the image reading device for the driving device to prevent the image data from being transmitted from the image reading device to the storage device when the detector detects that the image data equal to or greater than a predetermined amount is stored in the storage device; and

a position storage device that stores a position of the image reading device in the sub scanning direction at a time when the instruction device provides the instruction; and

wherein after the instruction device provides the instruction, the image reading device re-starts to read the image from the position stored in the position storage device when the detector detects that the image data stored in the storage device become equal to or less than a predetermined amount.

8. The image reading apparatus according to claim 1, wherein the predetermined time interval is set so as to correspond the detected time interval with a multiplication of the predetermined time interval.

9. An image reading apparatus for use with an original document, comprising:

an image reading device that reads an image on the original document as image data;

a driving device that drives the image reading device in a sub scanning direction;

a signal generator that generates a signal every time the image reading device is driven by the driving device by a specified amount;

a signal interval detecting device that detects the signals generated by the signal generator and a time interval between the signals;

a setting device that generates a predetermined time interval at which the electrical charge is accumulated for one line by the image reading device;

a controller that controls a value of current supplied to the driving device to make the time interval detected by the signal interval detecting device corresponding to the predetermined time interval;

a selecting device that selects an image reading solution to the image reading device;

wherein the predetermine time interval generated by the setting device is changed according to the selecting device.

10. An image reading apparatus for use with an original document, comprising:

an image reading device that reads an image on the original document as image data;

a driving device that drives the image reading device in a sub scanning direction;

a first signal generator that generates a first signal every time the driving device is driven by a specified amount;

a second signal generator that generates a second signal for reading the image by the image reading device at a predetermined time interval;

a signal interval detecting device that detects first signals generated by the first signal generator and a time interval between the first signals; and

a controller that performs drive control for the image reading device by increasing or decreasing a value of current supplied to the driving device based on a difference between the time interval detected by the signal interval detecting device and the predetermined time interval generated by the second signal generator; and

wherein after the difference becomes none, the controller synchronizes a timing to generate the second signal by the second signal generator with a timing to generate the first signal by the first signal generator and then starts to read the image by the image reading device.

11. The image reading apparatus according to claim 10, further comprising a selecting device that selects an image reading mode; and

wherein the predetermined time interval generated by the second signal generator is changed according to the image reading mode selected by the selecting device.

12. The image reading apparatus according to claim 11, wherein the selecting device selects an image reading resolution of the image reading device.

13. The image reading apparatus according to claim 12, wherein the selecting device selects the image reading mode to read the image in color or in monochrome.

14. The image reading apparatus according to claim 10, wherein the signal interval detecting device detects the time interval between one of the first signals and a preceding one of the first signals every time the signal interval detecting device detects the one of the first signals generated by the first signal generator.

15. The image reading apparatus according to claim 10, further comprising:

an interface that connects the image reading apparatus and an external device;

a storage device that temporarily stores the image data read by the image reading device before the image data are sent out to the external device through the interface;

a detector that detects an amount of the image data storable in the storage device;

an instruction device that provides an instruction to stop driving the image reading device for the driving device to prevent the image data from being transmitted from the image reading device to the storage device when the detector detects that the image data equal to or greater than a predetermined amount are stored in the storage device; and

a position storage device that stores a position on the document or a position of the image reading device in the sub scanning direction at a time when the instruction device provides the instruction; and

wherein after the instruction device provides the instruction, the image reading device re-starts to read the image from the position stored in the position storage device as the detector detects that the image data stored in the storage device become equal to or less than a predetermined amount.

16. The image reading apparatus according to claim 10, wherein the predetermine time interval is set so as to correspond to the detected time interval with a multiplication of the predetermine time interval.

17. An image reading apparatus for use with an original document, comprising:

an image reading device that reads an image on the original document as image data;

a driving device that drives the image reading device in a sub scanning direction;

a first signal generator that generates a first signal every time the driving

device is driven by a specified amount;

a signal interval detecting device that detects first signals generated by the first signal generator and a time interval between the first signals;

a second signal generator that generates a second signal indicating a predetermined time interval for reading the image by the image reading device;

a controller that controls a value of current supplied to the driving device to make the time interval detected by the signal interval detecting device correspond with the predetermined time interval; and

a selecting device that selects an image reading mode for changing the predetermined time interval indicated in the second signal generated by the second signal generator; and

wherein the predetermined time interval indicated in the second signal is changed by a resolution of the image reading device selected by the selecting device.

18. The image reading apparatus according to claim 17, wherein the selecting device selects the image reading mode to read the image in color or in monochrome.

19. The image reading apparatus according to claim 17, wherein the signal interval detecting device detects the time interval between one of the first signals and a preceding one of the first signals every time the signal interval detecting device detects the first signal generated by the first signal generator.

20. The image reading apparatus according to claim 17, wherein after the time interval becomes equal to the predetermined time interval, the controller synchronizes a timing to generate the second signal by the setting device with a timing to generate the first signal by the first signal generator and then starts to read the image by the image reading device.

21. The image reading apparatus according to claim 17, further comprising:

an interface that connects the image reading apparatus and an external device;

a storage device that temporarily stores the image data read by the image reading device before the image data is sent out to the external device through the interface;

a detector that detects an amount of the image data storable in the storage device;

an instruction device that provides an instruction to stop driving the image reading device for the driving device to prevent the image data from being transmitted from the image reading device to the storage device when the detector detects that the image data equal to or greater than a predetermined amount are stored in the storage device; and

a position storage device that stores a position of the image reading device in the sub scanning direction at a time when the instruction device provides the instruction; and

wherein after the instruction device provides the instruction, the image reading device re-starts to read the image from the position stored in the position storage device as the detector detects that the image data stored in the storage device become equal to or less than a predetermined amount.

22. The image reading apparatus according to claim 17, wherein the predetermined time interval is set so as to correspond to the detected time interval with a multiplication of the predetermined time interval.